

U.S. Patent Application Serial No. 10/645,849
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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 - 29 (Canceled)

Claim 30 (New): An information processing unit comprising:

a reading section for reading information recorded in a recording medium;

an information processing section that conducts a reproduction-processing of the information read by the reading section;

a reproducing-condition changing section that changes a reproducing speed of the information processing section in accordance with a rotating operation and stopping the reproduction-processing of the information processing section in accordance with a pressing operation and a touching operation;

a change condition selecting section that selects change in a processing position of the reproduction-processing; and

a processing control section that, when the pressing operation or the touching operation is recognized by the reproducing-condition changing section, changes start position of the reproduction-processing of the information processing section according to the change in the

processing position selected by the change condition selecting section.

Claim 31 (New): An information processing unit comprising:

a reading section for reading information recorded in a recording medium;

an information processing section for processing the information read by the reading section;

a change instruction recognizing section for recognizing an instruction for changing a processing position of said information in the information processing section;

a change condition setting section for setting processing details for changing the processing position of said information forward or backward and processing details for changing the processing position of said information to a prespecified processing position of said information; and

a processing control section for changing, when an instruction for changing the information processing position is recognized by said change instruction recognizing section, the processing position in said information processing section according to the processing details set by said change condition setting section.

Claim 32 (New): The information processing unit according to claim 30 further comprising:

a positional instruction recognizing section for recognizing a predetermined position of the information as a cue-point,

wherein the processing control section changes the start position of the reproduction-processing of the information processing section to the cue-point.

Claim 33 (New): The information processing unit according to claim 31 further comprising:
a positional instruction recognizing section for recognizing an instruction for the processing start position to have the information processed at the same position again, wherein said processing control section changes a processing position of said information processing section to the processing start position according to the instruction recognized by said positional instruction recognizing section.

Claim 34 (New): The information processing unit according to claim 32, wherein the information recorded in the recording medium includes data and positional information concerning a position of the data,

the information processing unit comprises a position recording section that, when an instruction for the cue-point is recognized by the positional instruction recognizing section, records the cue-point and information preceding and following the cue-point, and

the processing control section changes the start position of the reproduction-processing of the information processing section to the cue-point according to the positional information recorded in the position recording section.

Claim 35 (New): The information processing unit according to claim 33, wherein the information recorded in the recording medium includes data and positional information concerning

a position of the data, said information processing unit further comprising:

a position recording section for recording, when an instruction for a processing start position is recognized by the positional instruction recognizing section, said processing start position and information preceding and following said processing start position; wherein said processing control section changes a processing position in said information processing section to the processing start position according to said positional information recorded in said position recording section.

Claim 36 (New): The information processing unit according to claim 34, wherein the processing control section makes, when the start position of the reproduction-processing of the information processing section is changed to the cue-point, the information processing section process the data provided in the information recorded in the position recording section.

Claim 37 (New): The information processing unit according to claim 35, wherein the processing control section makes, when the processing position in the information processing section is changed to the processing start position, said information processing section process the data for the information recorded in the position recording section.

Claim 38 (New): The information processing unit according to claim 30, wherein the processing control section makes the information processing section change the start position of the reproduction-processing to the cue-point when the reproducing-condition changing section detects

pressing operation or the touching operation.

Claim 39 (New): The information processing unit according to claim 31, wherein said change instruction recognizing section determines whether a pressing operation or a touching operation has been performed or not, and said processing control section makes the information processing section change the processing state of the information or move the processing position of the information to the processing start position when said change instruction recognizing section determines that a pressing operation or a touching operation has been performed.

Claim 40 (New): The information processing unit according to claim 38, wherein the reproducing-condition changing section is divided into a plurality of blocks,

and the processing control section, when the reproducing-condition changing section detects the pressing operation or the touching operation on a specific block, changes the start position of the reproduction-processing of the information processing section based on the cue-point corresponding to the specific block.

Claim 41 (New): The information processing unit according to claim 39, wherein said change instruction recognizing section is divided to several blocks, and said processing control section changes, when it is determined in said change instruction recognizing section that a specific

block has been pressed or touched, a processing position in said information processing section based on the processing start position corresponding to said specific block.

Claim 42 (New): An information processing unit comprising:

a reading section for reading information recorded in a recording medium;

an information processing section for processing the information read by the reading section;

a positional instruction recognizing section for recognizing an instruction for a processing start position to have said information processed at the same position again;

a position recording section for recording, when an instruction for the processing start position is recognized by the positional instruction recognizing section, said processing start position and information preceding and following said processing start position;

a change instruction recognizing section for recognizing an instruction for changing a position of said information to be processed by said information processing section;

a processing control section for changing, when the instruction for changing a position of said information to be processed is recognized by the change instruction recognizing section, a position of the information by said information processing section to the processing start position based on the information recorded in said position recording section.

Claim 43 (New): The information processing unit according to claim 42, wherein the information recorded in the recording medium includes positional information concerning data and a position of the data,

said position recording section records a processing start portion corresponding to an instruction recognized by the positional instruction recognizing section and said information preceding and following the processing start position; and

said processing control section changes a position for processing in said information processing section according to said positional information included in said position recording section.

Claim 44 (New): The information processing unit according to claim 43, wherein said processing control section makes said information processing section process data for the information recorded in the position recording section when the position for processing by the information processing section is changed to the processing start position.

Claim 45 (New): The information processing unit according to claim 30, wherein the processing control section moves the start position of the reproduction-processing of the information processing unit forward or backward according to the rotating direction of the rotating operation detected by the reproducing-condition changing section.

Claim 46 (New): The information processing unit according to claim 31, wherein said change instruction recognizing section is rotatably provided to detect the rotating direction, and said processing control section moves a position for processing by the information processing unit forward or backward according to the rotating direction detected by said change instruction recognizing section.

Claim 47 (New): The information processing unit according to claim 42, wherein said change instruction recognizing section is rotatably provided to detect the rotating direction, and said processing control section moves a position for processing by the information processing unit forward or backward according to the rotating direction detected by said change instruction recognizing section.

Claim 48 (New): The information processing unit according to claim 30 further comprising:
a read control section that controls operations of the reading section,
wherein the read control section, when the start position of the reproduction-processing of the information processing section is changed by the processing control section, makes the reading section read information near the changed processing position.

Claim 49 (New): The information processing unit according to claim 31 further comprising:
a read control section for controlling operations of the reading section, wherein said read control section makes, when a position for processing by the information processing section is changed by the processing control section, the reading section read information near said changed processing position.

Claim 50 (New): The information processing unit according to claim 42 further comprising:
a read control section for controlling operations of the reading section, wherein said read control section makes, when a position for processing by the information processing section is changed by the processing control section, the reading section read information near said changed processing position.

Claim 51 (New): An information processing unit comprising:
a reading section for reading information recorded in a recording medium;
an information processing section that conducts a reproduction-processing of the information read by the reading section;
a reproducing-condition changing section for changing a reproducing speed of the information processing section in accordance with a rotating operation and stopping the reproduction-processing of the information processing section in accordance with a pressing operation and a touching operation; and

a processing control section that, when the pressing operation or the touching operation is conducted by the reproducing-condition changing section, makes the information processing section change a processing position of the reproduction-processing.

Claim 52 (New): An information processing unit comprising:

a reading section for reading information recorded in a recording medium;

an information processing section for processing the information read by the reading section;

a change instruction recognizing section for recognizing a change instruction for changing a position of said information to be processed by this information processing unit; and

a processing control section for making, when a change instruction for changing a processing position of the information is recognized by the change instruction recognizing section, said information processing section execute both the processing for changing a processing position of said information to a preset processing start position and the processing for moving the processing position of said information forward or backward.

Claim 53 (New): An information processing method comprising the steps of:

reading information recorded in a recording medium and conducting a reproduction-processing of the information;

selecting change mode of a processing position of the reproduction-processing;

changing a reproducing speed of the reproduction-processing by an information processing unit by a rotating operation and/or stopping the reproduction-processing by a pressing operation or a touching operation; and

changing a processing position of the reproduction-processing based on the result of the selection of the change mode.

Claim 54 (New): An information processing program stored in a computer-readable recording medium, the program making a computer execute the information processing method according to claim 53.

Claim 55 (New): A recording medium that stores the information processing program therein, wherein the information processing program according to claim 54 is recorded so that the program can be read out by the computer.

Claim 56 (New): A reproducing unit comprising:
the information processing unit according to claim 30;
and a reproducing section that fetches the reproduction-processed information and reproduces the information reproduction-processed by the information processing unit as sound or image.

Claim 57 (New): The reproducing unit according to claim 56,
wherein the information processing section conducts reproduction processing on music data
recorded in a recording medium;

the reproducing-condition changing section has a rotating body provided in a rotatable
manner, the reproducing-condition changing section changing a reproducing speed of the
reproduction-processing of the information processing section by a rotating operation on the rotating
body and stopping the reproduction-processing of the information-processing unit by a pressing
operation or a touching operation on the rotating body;

the processing control section changes a processing position of the information processing
section to a previously stored position in response to the pressing operation or the touching operation
detected by the reproducing-condition changing section, and further changes the processing position
by the information processing section forward or backward in response to the rotating operation
detected by the reproducing-condition changing section; and

the reproducing section outputs the information processed by the information processing
section as sounds.

Claim 58 (New): A reproducing unit comprising:

the information processing unit according to claim 51; and

a reproducing section that fetches and reproduces the information reproduction-processed by the information processing unit,

wherein the reproducing-condition changing section of the information processing unit has a rotating body provided in a rotatable manner, the reproducing-condition changing section changing a reproducing speed of the reproduction-processing of the information processing section by a rotating operation on the rotating body and stopping the reproduction-processing of the information-processing unit by a pressing operation or a touching operation on the rotating body; and

the processing control section of the information processing unit changes the processing position of the information processing section in the information processing unit to a previously stored position when the pressing operation or the touching operation is detected during non-pressed condition or non-touched condition by the reproducing-condition changing section,

and the processing control section moves the processing forward or backward in the rotating direction when the rotating operation is detected by the reproducing-condition changing section while detecting the pressing operation or the touching operation.